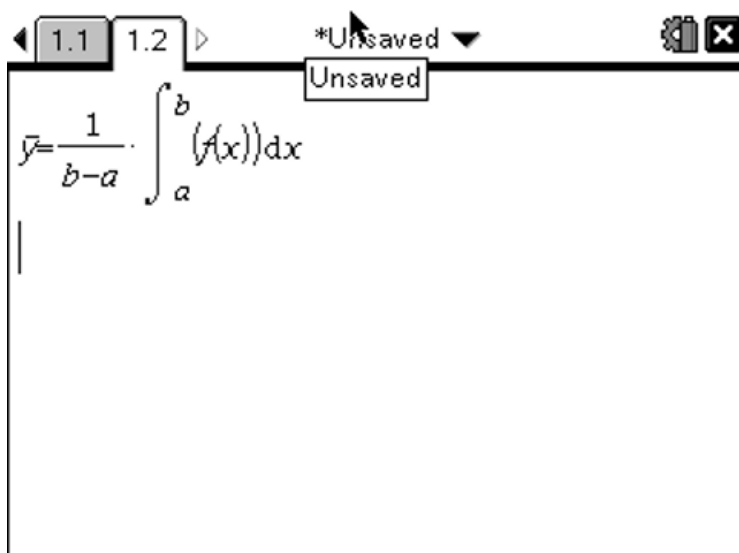


5.3b Definite Integrals and Antiderivatives

Rules for Definite Integrals

Nov 13-4:58 PM

Average (Mean) Value



The screenshot shows a software window titled "Average (Mean) Value". The window has a title bar with a standard OS interface (minimize, maximize, close buttons) and a status bar at the bottom. The main content area displays the formula for the Average Value theorem:
$$\bar{y} = \frac{1}{b-a} \cdot \int_a^b f(x) dx$$
 Below the formula, there is a vertical line. The window also shows a tab labeled "1.1" and "1.2" and a status bar at the bottom indicating "Unsaved".

Nov 13-5:05 PM

Find the average value of $f(x) = 4 - x^2$ on $[0, 3]$. Does f actually take on this value at some point on the given interval?

Nov 13-5:12 PM

Mean Value Theorem for Definite Integrals

Nov 13-5:29 PM

How long is the average chord of a circle of radius 4? Find the value that satisfies the Mean Value Theorem for Definite Integrals.

Nov 13-5:31 PM